

1 CLAIMS:

1. A method of displaying and updating television schedule information data in a television schedule information transmission system having a central data processing system and a plurality of subscriber systems, the method comprising the steps of:

5 receiving the television schedule information data and instructions related to the television schedule information data for one or more of the plurality of subscriber systems via a television telecast signal;

10 extracting a portion of the television schedule information data from the television telecast signal responsive to the received instructions;

15 storing the portion of the television schedule information data in a memory at the one or more of the plurality of subscriber systems;

preparing portions of the television schedule information data responsive to at least one of the received instructions; and

20 displaying the portions of the television schedule information data on a display monitor.

2. The method of claim 1, wherein the television schedule information data is received by a subscriber system if the instructions are addressed to that subscriber system.

3. The method of claim 2, wherein a batch number as part of an instruction is used as a group address to send the instruction to at least one subscriber system sharing the same batch number.

4. The method of claim 2, wherein one of the instructions is an authorization command authorizing the subscriber system to begin collecting and displaying the television schedule information data.

- 1 5. The method of claim 1, wherein at least one of the instructions received is private to at least one of the subscriber system.
- 5 6. The method of claim 1, wherein the television schedule information data is received in the blanking interval of the television telecast signal.
- 10 7. The method of claim 1, wherein the receiving step comprises the step of decrypting an encrypted instruction.
8. The method of claim 1, wherein the preparing step comprises the steps of:
- 15 executing the at least one of the received instructions; determining if certain of the television schedule information has already been received by the subscriber system; and
- receiving the certain of the television schedule information if it has not already been received.
- 20 9. The method of claim 1, further comprising the steps of:
- receiving a daylight change command defining when a next daylight change will occur; and
- 25 adding a time-zone offset to a local time to show the correct adjusted local time when the next daylight change occurs.
- 30 10. The method of claim 1, wherein the preparing step comprises the steps of:
- receiving an instruction including channel ID numbers and television scheduling information;
- matching the received channel ID numbers to a list of channel ID numbers stored in the memory representing the valid
- 35 channels in the subscriber system; and
- compiling the television scheduling information on the channels for which the channel ID number in the list stored in

1 the memory representing the valid channel matches that of the
received channel ID number.

5 11. The method of claim 10, further comprising the steps
of:
receiving a second instruction providing at least 24
hours of television scheduling information data.

10 12. The method of claim 10, further comprising the steps
of:
receiving a show title instruction containing a name of
a television program;
comparing the name of the television program to a show
list maintained in the memory;
15 saving the show title instruction in the database if
there is a match between the name of the television program
and any entry in the show list; and
ignoring the show title instruction in the memory if
there is not a match between the name of the television
20 program and any entry in the show list.

13. The method of claim 12, wherein the name of a
television program is compressed text.

25 14. The method of claim 1, wherein the storing step
comprises the steps of:
periodically running a garbage collection process to
collect unused memory blocks;
recombining the unused memory blocks into larger memory
30 blocks; and
making the larger memory blocks accessible by the
computer program.

35 15. The method of claim 1, wherein the portion of the
television schedule information data is stored in a database
as database items in the memory.

16. The method of claim 15, wherein the database items are arranged hierarchically in descending order as a list of channels and a list of show titles, show description, show start time and show durations for each channel.

17. The method of claim 16, wherein the database items are further arranged hierarchically in descending order as a theme table defining theme categories, theme sub-table defining theme sub-categories, and theme show table defining themes of a selected list of shows.

18. A system for displaying and updating television schedule information data in a subscriber system included in a television schedule information transmission system having a central data processing system and a plurality of subscriber systems, comprising of:

a microprocessor at each of the plurality of subscriber systems;

a decoder at each of the plurality of subscriber systems for receiving the television schedule information data and instructions related to the television schedule information data for one or more of the plurality of subscriber systems via a television telecast signal;

means for extracting at least a portion of the television schedule information data from the television telecast signal responsive to the instructions included in the instructions;

a memory for storing the at least a portion of the television schedule information data;

code for the microprocessor for preparing portions of the television schedule information data responsive to the instructions included in the instructions; and

a display for displaying the portions of the television schedule information data on the display monitor.

19. The system of claim 18, wherein the television schedule information data is received by a subscriber system if the instructions are directed to that subscriber system.

1 20. The system of claim 19, further comprising a batch
number as part of an instruction for a group address to direct
the instruction to at least one subscriber system sharing the
same batch number.

5 21. The system of claim 19, wherein one of the received
instructions is an authorization command authorizing the
subscriber system to begin collecting and displaying the
television schedule information data.

10 22. The system of claim 18, wherein at least one of the
instructions received is private to at least one of the
subscriber system.

15 23. The system of claim 18, wherein the television
schedule information data is received in the blanking interval
of the television telecast signal.

20 24. The system of claim 18, wherein at least one of the
received instructions is an encrypted instruction.

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